

## CLAIMS

What is claimed is:

1. A method for mapping Open Grid Services Architecture (OSGA) service data to a native resource representation thereof, the method comprising:
  - defining a set of standard mapping rules for service data descriptions in a service-oriented architecture;
  - wherein said set of standard mapping rules are implemented through an OSGA Service Data Mapping Language (OSDML) configured to support complex mapping through extensible language features.
2. The method of claim 1, wherein said OSDML is an extensible markup language (XML).
3. The method of claim 1, wherein said OSDML defines an extensible set of at least one of: data source mechanisms and resource access mechanisms.
4. The method of claim 1, wherein said OSDML defines parameterization capabilities for supporting dynamic values.
5. The method of claim 1, wherein said OSDML defines executable scripts to process data transformation and queries.
6. The method of claim 1, wherein said OSDML defines a mechanism for defining private mapping for an internal state of a service.

7. The method of claim 1, wherein said OSDML defines a set of rules for defining and mapping service data change notification subscriptions from a corresponding native resource implementation thereof.

8. The method of claim 1, further comprising:  
defining a flexible framework engine for processing rules and mappings defined by said OSMDL.

9. The method of claim 8, wherein said framework engine includes a uniform interface to services implementation.

10. The method of claim 8, wherein said framework engine includes a pluggable provider interface, said pluggable provider interface being configured to support language extensions and new service data providers.

11. The method of claim 10, wherein said framework engine is configured to support at least one of: parameterization, flexible data source binding and pluggable script execution.

12. The method of claim 10, wherein said framework engine further comprises a document repository.

13. The method of claim 10, wherein said framework engine further comprises a generic interface for supporting OSDML instance data retrieval.

14. The method of claim 10, wherein said pluggable provider interface comprises at least one of: a common information object manager (CIMOM) and a database adapter.

15. The method of claim 10, wherein said engine is configured to map service data definitions to relational database schema.

16. A system for mapping Open Grid Services Architecture (OSGA) service data to a native resource representation thereof, comprising:

a defined set of standard mapping rules for service data descriptions in a service-oriented architecture;

wherein said set of standard mapping rules are implemented through an OSGA Service Data Mapping Language (OSDML) configured to support complex mapping through extensible language features.

17. The system of claim 16, wherein said OSDML is an extensible markup language (XML).

18. The system of claim 16, wherein said OSDML defines an extensible set of at least one of: data source mechanisms and resource access mechanisms.

19. The system of claim 16, wherein said OSDML defines parameterization capabilities for supporting dynamic values.

20. The system of claim 16, wherein said OSDML defines executable scripts to process data transformation and queries.

21. The system of claim 16, wherein said OSDML defines a mechanism for defining private mapping for an internal state of a service.

22. The system of claim 16, wherein said OSDML defines a set of rules for defining and mapping service data change notification subscriptions from a corresponding native resource implementation thereof.

23. The system of claim 16, further comprising a flexible framework engine for processing rules and mappings defined by said OSMDL.

24. The system of claim 23, wherein said framework engine includes a uniform interface to services implementation.

25. The system of claim 23, wherein said framework engine includes a pluggable provider interface, said pluggable provider interface being configured to support language extensions and new service data providers.

26. The system of claim 25, wherein said framework engine is configured to support at least one of: parameterization, flexible data source binding and pluggable script execution.

27. The system of claim 25, wherein said framework engine further comprises a document repository.

28. The system of claim 25, wherein said framework engine further comprises a generic interface for supporting OSDML instance data retrieval.
29. The system of claim 25, wherein said pluggable provider interface comprises at least one of: a common information object manager (CIMOM) and a database adapter.
30. The system of claim 25, wherein said engine is configured to map service data definitions to relational database schema.